



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

h.p

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,737	08/25/2006	Genji Imai	7398/88285	1182

42798 7590 08/07/2007  
FITCH, EVEN, TABIN & FLANNERY  
P. O. BOX 18415  
WASHINGTON, DC 20036

EXAMINER
----------

KIANNI, KAVEH C

ART UNIT	PAPER NUMBER
2883	

MAIL DATE	DELIVERY MODE
08/07/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/590,737

Applicant(s)

IMAI ET AL.

Examiner

Kianni C. Kaveh

Art Unit

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 9 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 9 and 10 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-8, drawn to a curable resin composition for optical waveguide;

Group II, claim(s) 9 and 10 that include claims 1 and 4, respectively, drawn to a method for forming a core part for optical waveguide including the steps of irradiating light to cure a part to be a core part and dissociating a blocking agent in an un-cured layer to generate an acidic group.

The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Group I invention can be used for making a different device such as an optical coupler/connector rather than an optical core and that the invention I can be made with different process than that of invention II such as by chemical etching/wet-drying rather than photo/radiation curing as stated in invention II. Thus, each of the above group inventions directed to an invention that is distinct, and requires a different search, than that of other inventions.

During a telephone conversation with Mr. Colton on 7/25/07 a provisional election was made with traverse to prosecute the invention of I, claims 1-8. Affirmation of this election must be made by applicant in replying to this Office action. Claims 9-10 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### **Claim Objections**

Claims 1, 4 and 7 are objected to because of the following informalities: The alphanumerical labeling (A) (a) (b) (B) and (C) are placed in a confusing manner throughout the claims and need to be either cancelled or appropriately corrected such as by placing them at the beginning of each limitation(s) that they are pertained. Appropriate correction is required.

### ***Claim Rejections - 35 USC 112***

Claims 1, 4, 7 and are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 4 and 7 are ambiguous, since 'other radical-polymerizable compound' is not defined as what the 'other' ' radical-polymerizable compound is in which the applicant needs use a concise limitation. Also these claims contain 'the molecule' which lack antecedent basis and need to be corrected.

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Araki et al. (US 20040052496).

Araki teaches a curable resin composition for optical waveguide having a lower clad layer, a core part and an upper clad layer (shown in at least fig. 1) wherein at least one of the lower clad layer, the core part and the upper clad layer is formed of a cured

Art Unit: 2883

substance of a curable dry film for optical waveguide (see at least fig. 1 and 0025 and 0029)) comprising, as essential components, a copolymer (A) of a radical-polymerizable compound (see 0179) (a) having an acid anhydrous group and/or an acidic group carrying a blocked acid group (see at least 0176 and/or 0271) and a radical-polymerizable unsaturated group, with other radical-polymerizable compound (See at least 0178) (b), the copolymer having a softening temperature of 0 to 300.degree. C (see 0301), a polymerizable unsaturated compound (B) (see at least 0178), and a polymerization initiator (C) (see at least 0179); wherein the acid group to be blocked is at least one group selected from carboxyl group, phosphoric acid group, sulfonic acid group and phenolic hydroxyl group (see at least 0173-0176); wherein the blocking agent for blocking an acid group contains an ether-bonded olefinic unsaturated group (see at least 0072-0077); wherein the difference in specific refractive index between the clad layer and the core part is identical or 0.1% or more (see at least 0245).

However, Araki does specifically state wherein the above radical-polymerizable unsaturated group 'in the molecule'. Nevertheless, Araki states that the group has a certain molecular weight (0033) and that polymerization reaction and condensation reaction are caused between the molecules related to polymerization (see 0050. Thus, it is obvious/well-known to those of ordinary skill in the art when the invention was made that polymerization concerning radical-polymerizable unsaturated group are/known-as 'in the molecule', since such polymerization would provide a novel optical waveguide having the above materials (0010).

***Citation of Relevant Prior Art***

Prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In accordance with MPEP 707.05 the following references are pertinent in rejection of this application since they provide substantially the same information disclosure as this patent does. These references are:

(US-20050158004 or US-20040052496) or US-20040047060) or (US-7211635 or US-7125926 US-7106940- US-6901205)

These references are cited herein to show the relevance of the apparatus/methods taught within these references as prior art.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kianni C. Kaveh whose telephone number is 571-272-2417. The examiner can normally be reached on 9:30-19:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

K. CYRUS KIANNI  
PRIMARY PATENT EXAMINER

7/31/07 